

**BUILT UP
TO A STANDARD
NOT DOWN
TO A PRICE**

Vacuum Grip Tools

REG. U.S. PAT. OFF.



"I WOULDN'T GIVE 'EM UP FOR THEIR WEIGHT IN GOLD"

**NOT AN EXPENSE -
A PROFITABLE
INVESTMENT**

**FORGED STEEL PRODUCTS CO.
NEWPORT . PA .**

The VACUUM GRIP GUARANTEE

Guarantee

EVERY Vacuum Grip Tool is hammer forged from our own exclusive special formula high carbon electric furnace alloy tool steel, individually hardened and tempered through and through. NOT CASE HARDENED (surface hardened only).

Any Vacuum Grip Tool found to be defective in material or workmanship will be replaced cheerfully and promptly without charge.

For obvious reasons, we must ask to be excused from allowing unreasonable claims for replacement. For example, please do not ask us to replace edged cutting tools which have been abused by attempting to cut metal which has been case hardened or otherwise hardened, neither can we afford to replace nor is it fair to ask us to replace as defective, tools which have been misused or abused, such as burning from live wires, grinding or filing, deliberate breakage, and tools which have been worn out, or with usefulness impaired from wear through long and severe service.

Every tool bearing the Vacuum Grip trade mark is subjected to rigid inspection before shipment from factory. Claims for replacement due to defects in either materials or workmanship will be attended to promptly upon receipt of the tool at the factory, shipping charges prepaid. Pliers that show wear from long or severe use will be reconditioned by replacing rivets, studs and nuts, or by re-edging cutters, at our standard nominal repair service charge, to cover cost of labor and postage.

In other words, Vacuum Grip Tools are built to render the user 100 per cent plus satisfactory service, and if they fail to make good—we will.

FORGED STEEL PRODUCTS CO.

THIS GUARANTEE IS INSURANCE AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP, IN THE PURCHASE OF ANY VACUUM GRIP BRAND TOOL

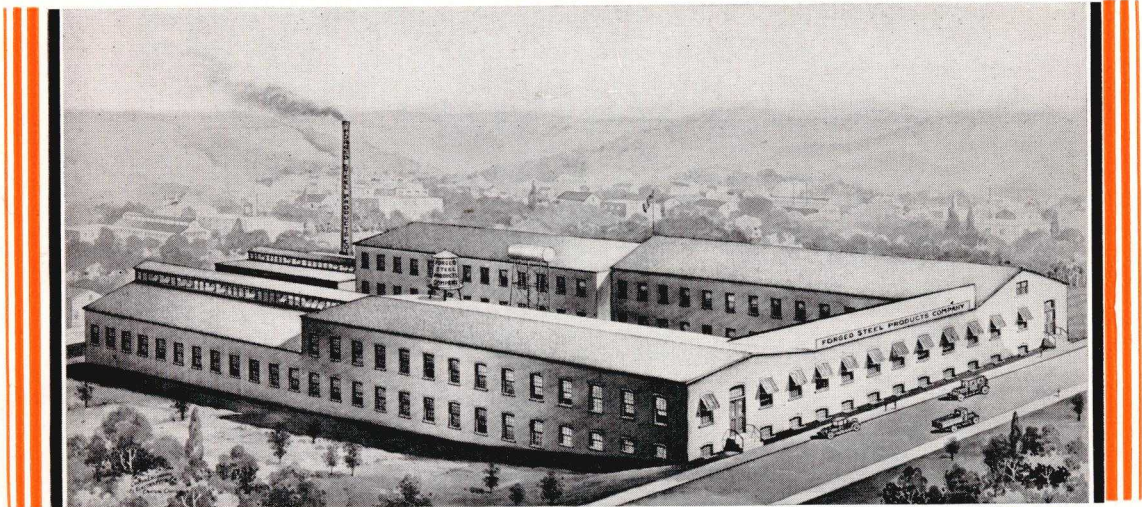
Prices quoted in this catalog are net to tool users in all trades

Prices subject to change without notice

INDEX

	Page		Page
Angle-Nose Grippers	5	Electricians' Pliers	7-8
Battery Pliers	6	End Cutting Nippers	9
Battery Terminal Puller	10	Ignition Pliers	11
Bolt Cutters	13	Kits (Chisels)	14
Brake Pliers	10	Kits (Pliers)	12
Brake Spring Pliers	10	Kits (Punches)	14
Cape Chisels	14	Lineman Connectors	9
Center Punches	14	Lineman Pliers	9
Chisels	14	Needle Nose Pliers	7
Combination Gripping and Cutting Pliers	4-5	Piston Ring Groove Cleaner	11
Diagonal Cutters	8	Punches	14
Diamond Point Chisels	14	Screw Drivers	15
Display Cabinets	Back Cover	Starter Punches	14
Drift Punches	14	Valve Pin Pliers	7
		Water Pump Pliers	11

VACUUM GRIP PLIERS AND SPECIAL-PURPOSE TOOLS



PLANT OF THE FORGED STEEL PRODUCTS CO., NEWPORT, PA.
WHERE THE WORLD'S FINEST PLIERS ARE MADE

Vacuum Grip REG. U. S. PAT. OFF. **Pliers**

"Built UP to a Standard Not DOWN to a Price"

VACUUM Grip Pliers are the product of a plant operated with the idea of manufacturing pliers of super-quality, to speed the work and lighten the task of the mechanic. Every pair is an individual example of correct design and skilled craftsmanship.

Built to the highest standards, they express an ideal—and because of a rigid adherence to that ideal, have won the word-wide admiration and respect of mechanics who appreciate tools of correct design and outstanding quality.

FACTS YOU SHOULD KNOW ABOUT PLIERS

The purchase of a pair of Vacuum Grip Pliers should be regarded not as an expense but as a profitable investment. While they cost a little more than ordinary makes, they are by far the most inexpensive pliers procurable at any price, on the basis of their high efficiency and long life. In some cases, under actual test, they have been known to outlast other makes eight and ten to one!

The phenomenal durability of these pliers is the result of two vital factors: Material and Construction. Steel that is ordinarily rated as "high grade" falls far below the standard required in the manufacture of Vacuum Grip Pliers.

STEEL

The steel now used in these super-tools was developed after more than five years of metallurgical research and laboratory experiment. It is an exclusive formula, not used in any other make of pliers—a high carbon electric furnace alloy tool steel of exceptional hardness and toughness, rendered harder and tougher by a series of special liquid heat hardening and tempering processes. These processes penetrate to the very core of the metal. Vacuum

Grip Pliers, unlike "case hardened" (surface hardened) pliers, are heat treated through and through!

MANUFACTURE

Thoroughness and care characterize every stage of manufacture. The machining and finishing processes are accurate to a hair's breadth. The gripping teeth are true in form and sharply milled for maximum gripping power. In types with cutting blades, the blades are accurately matched and hand-filed for perfect alignment, which (barring actual abuse) is retained throughout the life of the tool, due to the strength and rigidity of the joint. Yet, in spite of this rigidity, all Vacuum Grip joints are easy-riding and open at a touch. Many gauge tests and inspections are made during the various stages of manufacture, with a final inspection and test on completion of the assembly.

To own a pair of Vacuum Grip Pliers is to own a precision-built tool of the highest quality—a tool that any mechanic may well be proud to possess—and one that represents a true economy purchase.

FORGED STEEL PRODUCTS CO.
NEWPORT, PA.

Vacuum Grip Tools

BUILT UP TO
NOT DOWN A STANDARD
TO A PRICE

COMBINATION GRIPPING AND CUTTING PLIERS

Adjustable Joint Type

EVERY mechanic would like to own a pair of pliers in which real cutting and gripping power are combined. The convenience of such a tool is self evident—it means that one pair of pliers takes the place of two.

In the past the trouble with pliers of this type has been that they failed to perform either operation in a thoroughly satisfactory way. Not until we started to make combination gripping and cutting pliers fifteen years ago, could it be said that a pattern had been produced that was capable of giving 100 per cent efficient service in both functions. Vacuum Grip Pliers, gripping and cutting types, are not a compromise. They grip as well as they cut, and vice versa, and used either way perform as well as pliers designed for one operation only.

No. 37 HEAVY DUTY GENERAL PURPOSE PLIERS

(Below)

Specially designed for mechanics who want an adjustable joint gripping and cutting pliers for heavy duty service. A true two-in-one tool of unusually rugged construction, for all around general use.

The jaws of these pliers have tremendous gripping power, while the cutters have a cutting capacity equal to those of Lineman Pattern Pliers. Furnished in four sizes, to meet varying requirements.

Popular Size for All Around Use

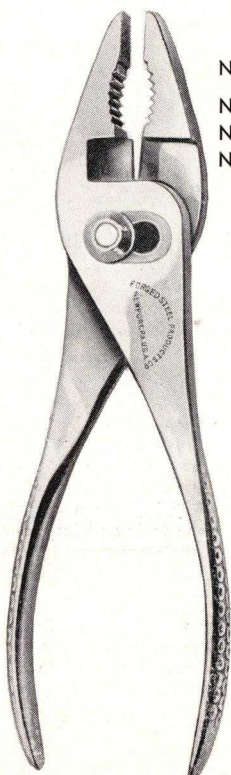
No. 37 Length 7" \$2.00

No. 34 Length 4" \$1.25

No. 35 Length 5" \$1.60

No. 36 Length 6" \$1.75

*All Patterns
Full Nickel Finish*



No. 67 LIGHT WEIGHT HEAVY DUTY PLIERS

The "Aviator"

(Below)

A beautifully designed overcapacity tool, widely used by mechanics in every line and specially popular with fliers and airplane mechanics because of its light weight and the broad scope of its usefulness. Handy in a hundred ways.

Amazingly powerful for gripping and wire cutting. Great for electrical work. The thin, tapered, long reach nose makes it valuable for use in confined spaces that other pliers can't reach. Has two-adjustment slide joint. An exclusive Vacuum Grip pattern. Ideal for the personal tool kit of any mechanic.

Popular Size for All Around Use

No. 67 Length 7" \$2.00

No. 65 Length 5" \$1.50

No. 66 Length 6" \$1.75

*All Patterns
Full Nickel Finish*



No. 137 HEAVY DUTY GENERAL PURPOSE PLIERS

This exclusive Vacuum Grip design is by far the most popular pattern of this famous line of pliers. About one quarter of a million are in daily use by mechanics in all trades where pliers are required. Among automobile mechanics they are a popular favorite because of their high efficiency over a wide range of jobs.

The specially milled teeth insure a positive grip on nuts, bolts and rods up to 1 1/4 in. The keen cutters, hand edged and set in true alignment, retain their cutting power indefinitely. The two-adjustment slide joint enables the mechanic to get the right jaw opening for gripping objects of any size. Fashioned handles for greater comfort to the hand, with deeply bossed "Vacuum Grip" cups, affording a sure, non-slip hold.

No. 137 Length 7" \$2.00

Full Nickel Finish

Vacuum Grip Tools

BUILT UP TO A STANDARD
NOT DOWN TO A PRICE

COMBINATION GRIPPING AND CUTTING PLIERS

Adjustable Joint Type

No. 47 HEAVY DUTY GRIPPING PLIERS (Below)

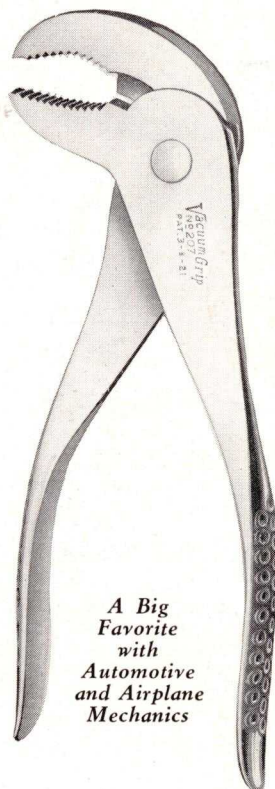
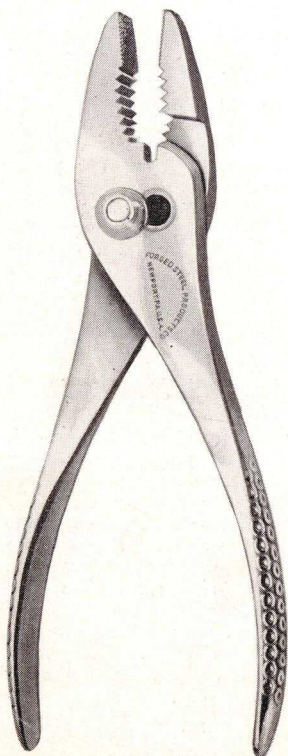
These powerful pliers are built with the idea of placing in the mechanic's hand a pattern that is first and foremost a gripping tool of the utmost efficiency for all around service. They will be found of great value in any shop that calls for pliers capable of gripping and turning nuts of any shape, rods, bars, shafts, bolts, etc. The deeply milled, sharply edged teeth insure a bulldog grip.

Note the "high" position of the joint pin, and the long handles, furnishing a fulcrum that multiplies hand power tremendously. All sizes have handy notched type wire cutters.

Popular Size for All Around Use

No. 47 Length 7" \$1.50
No. 45 Length 5" \$1.00
No. 46 Length 6" \$1.15
No. 49 Length 9" \$2.25

All Patterns Full Nickel Finish



*A Big
Favorite
with
Automotive
and Airplane
Mechanics*

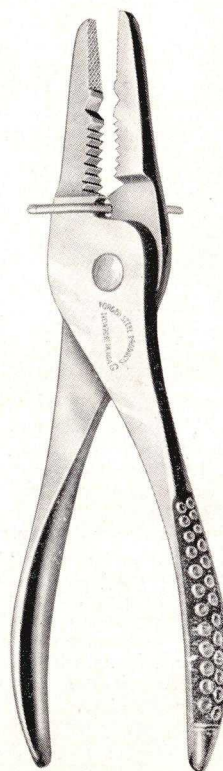
No. 27 LONG REACH THIN NOSE PLIERS (Below)

Another valuable Vacuum Grip "special" that covers a wide range of uses. The thin nose, built with an extra long reach, enables the mechanic to get action in cramped quarters that are absolutely inaccessible to ordinary pliers of the tapered nose type. The easy riding slide joint (not shown in illustration) provides a parallel grip on two adjustments. Notched jaws afford a sure hold for square or hex nut. Has deeply milled teeth of tremendous gripping strength and notched type wire cutters.

This pattern is popular with garage mechanics and others whose work calls for pliers with a long reach. Also used by many workers in the electrical field. Light in weight yet a giant in strength.

No. 27 Length 7" \$1.75
No. 25 Length 5" \$1.20
No. 26 Length 6" \$1.35

Full Nickel Finish



No. 207 HEAVY DUTY ANGLE-NOSE GRIPPERS (Above)

This Vacuum Grip Special is virtually "made to order" for the mechanic who is confronted daily with jobs that call for pliers of unusual gripping power. Conceded to be the most powerful gripping pliers of their size ever produced. The strong, deeply milled teeth, set at Stillson Wrench slant, simply can't slip and let go.

Takes the place of a dozen types of grippers and wrenches. Useful in a hundred ways—and especially valuable for those "tough" jobs. Loosens "frozen" nuts with ease. Makes short work of rods and pipes that have become thread-rusted. Pulls heavy cotter pins "just like that." Useful for battery terminals, spark plugs, etc. Adjustable slide joint (not shown in illustration) gives a working jaw opening of 1 1/8". Angle nose, offset at 90 degrees, gets into the "tight" corners where other pliers are useless.

The long handles, fashioned for comfort, multiply hand power without bruising the hand.

No. 207 Length 7" \$1.50

Full Nickel Finish

Vacuum Grip Tools

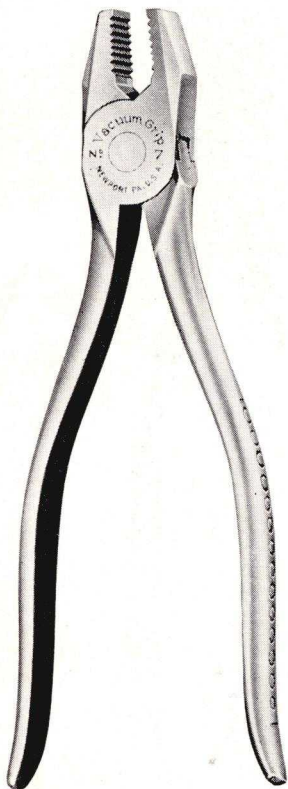
BUILT UP TO
NOT DOWN A STANDARD
TO A PRICE

SPECIAL BATTERY PLIERS

Also Valuable for Many Gripping Purposes

THIS group of Special Patterns forcefully illustrates the difference between ordinary pliers and pliers created by expert tool designers. So efficiently do they perform the work for which they were built that they have won practically universal recognition as the standard for design and quality in Battery Pliers.

But going a step beyond this, our far-seeing designers have modified these Special Purpose patterns in such a way as to render them valuable in a wide variety of uses without lessening their efficiency for Battery work. An important consideration from the standpoint of the shop or individual mechanic, as it means that the money invested is not tied up in a single type of service but brings the purchaser an extra value in the extra scope of the service rendered.

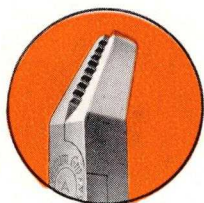


**No. 7
SPECIAL BATTERY PLIERS**
(Above)

A big favorite among shop men who handle battery work. Takes care of all types of terminals without injury to tops of jars. The parallel grip and specially milled teeth give these pliers a sure hold with light hand pressure.

Extensively used by automotive mechanics for adjusting brakes, work on auxiliary parts and for general nut turning. Handles nuts, square or hex, up to $\frac{5}{8}$ ". Does away with a number of special purpose wrenches. Has tapered nose for working in confined spaces. The long spring tempered, fashioned handles furnish tremendous leverage, affording a powerful grip without bruising the hand.

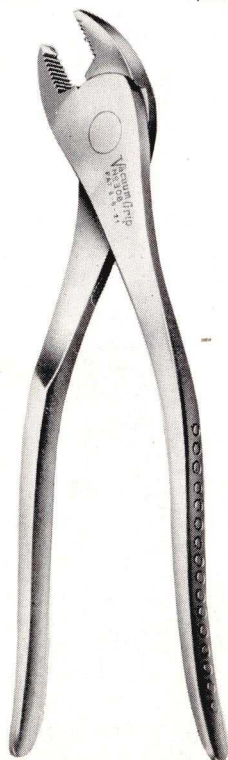
No. 7 Length 7" \$1.50
Buffed to a High Finish



**No. 7-A
BENT NOSE PATTERN**

Identical with No. 7 in all essential features but made with bent nose (not offset at an angle) for a sure grip in cramped quarters where a diagonal reach is necessary. The bent nose gives the handles a sharp slant for safe clearance. Takes the place of a dozen small wrenches.

No. 7-A Length 7" \$1.50
Buffed to a High Finish



**No. 308
SPECIAL BATTERY PLIERS**
(At Left)

Like the other patterns described on this page, No. 308 is designed primarily for battery service but in reality covers a broad field of usefulness. Very handy on auxiliary parts. The thin tapered nose, offset at a 30° angle, makes this pattern especially valuable for jobs where the mechanic has to "get around a corner" in order to grip the object desired. The long handles are also a big help in reaching parts that are closely built in. There is extra gripping power, too, in their extra length. Takes care of hex or square nuts, rods, pipes, etc., up to 1".

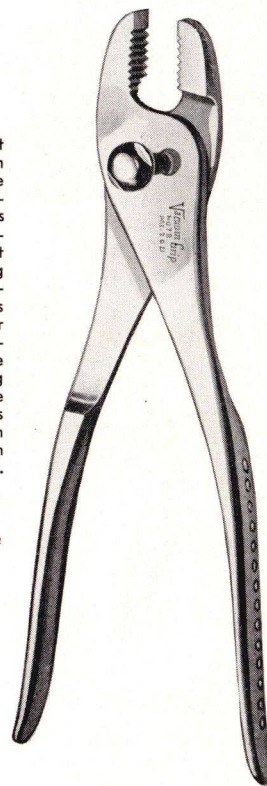
No. 308 Length 8" \$1.50
Buffed to a High Finish

**No. 7-B
SPECIAL BATTERY
PLIERS**

(At Right)

Similar to No. 7 but somewhat lighter in construction. Made with rounded instead of bevel type nose, tapered two ways. The outstanding feature of these pliers is the adjustable slide joint, permitting two jaw openings, both at parallel, with a maximum working opening of $1\frac{1}{4}$ ". This feature recommends No. 7-B to mechanics who are desirous of owning a pair of battery pliers that can be employed in the greatest possible number of ways as a gripping tool for nuts, rods and pipes. The special construction of the jaws and joint gives this pattern tremendous strength in spite of its light weight.

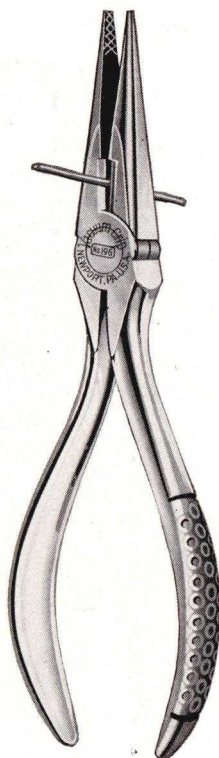
No. 7-B
Length 7" \$1.50
Full Nickel Finish





NEEDLE NOSE PLIERS

THE excellence of their design, satisfying every requirement on work calling for needle nose patterns, has made these pliers a favorite with mechanics in all industries. Despite the structural slenderness of the nose, they are extremely rugged. The joints are specially designed for strength; nose section and handles spring tempered—vital features in pliers of this type which must retain their alignment in order to assure a continuance of their gripping and cutting power.



No. 196
LONG NEEDLE NOSE
Light Weight Heavy Duty
(Above)

Popular with mechanics in all trades. The easy-riding joint serves to speed up the work in all gripping and cutting operations. Full curved handles for hand comfort, with deeply recessed Vacuum Grip "cups" for a sure grip. Specially spring tempered throughout. Famous for their durability under hardest use.

No. 196 and No. 96 are very popular with automotive mechanics, telephone electricians and electrical workers. Also extensively used in factories and assembling plants where special operations require a needle nose pattern.

Wire Cutter Pattern

No. 196	Length 6"	\$1.85
No. 195	Length 5"	\$1.75

Without Wire Cutters

No. 95	Length 5"	\$1.50
No. 96	Length 6"	\$1.50
No. 96-RT (Sleeve Twister in Jaws)	Length 6"	\$1.75

All Patterns Buffed to a High Finish

No. 597
SPECIAL
VALVE PIN PLIERS

(Below)

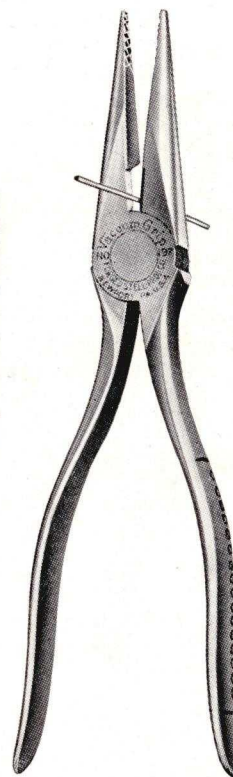
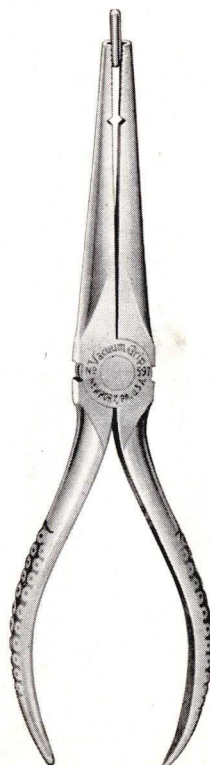
An exclusive Vacuum Grip pattern designed primarily to provide the mechanics with a strong, efficient tool for pulling and setting valve pins. Furnished with deeply recessed notched grooves at jaw ends, affording a sure grip that pulls the most stubborn pin. The cross-milled notches, cut V-shape, handle any size pin.

A very powerful pair of pliers of heavy construction. Can be used on any number of jobs that require needle nose pliers of extra long reach. Specially heat treated throughout for hardness and toughness. Jaws and handles spring tempered.

A Great Tool for the Mechanic's Kit

No. 597 Length 7 1/2" \$2.50

Buffed to a High Finish



No. 197
LONG NEEDLE NOSE
Special Extra Heavy Duty
(Above)

An exclusive Vacuum Grip pattern, built with an extra factor of strength, to stand the gaff on jobs where rugged construction and stamina are necessary. A husky tool that doesn't have to be "babied" yet so skilfully designed that it is adapted to the finer and more delicate operations.

No. 197 has powerful cutters, capable of handling cutting jobs that ordinarily call for 7-inch Lineman Pliers. Full fashioned handles, specially spring tempered, giving the resilience and comfortable grip that mechanics appreciate in heavy duty work. Very popular with garage mechanics, electricians and factory operatives whose work demands needle nose pliers of exceptional strength.

Wire Cutter Pattern

No. 197 Length 7 1/2" Price \$2.50

Without Wire Cutters

No. 97 Length 7 1/2" Price \$2.00
Buffed to a High Finish



DIAGONAL CUTTERS

THESE members of the Vacuum Grip family have earned a reputation among mechanics the world over as "Quality" tools of the highest order. For sheer cutting power, toughness of steel, structural ruggedness and durability they are strictly in a class by themselves. You will pay a little more for these famous "Diagonals" but when their long life is taken into consideration, the purchase price represents a substantial saving.

No. 86

Heavy Duty Pattern

(Below)

Recommended for general use where the nature of the work calls for medium size diagonals built to stand the gaff of hard daily service. The descriptive matter under No. 87 applies also to this group of cutters. Nose specially tapered for working in confined spaces. Beautifully manufactured in every detail.

No. 86	Length 6"	\$2.00
No. 85	Length 5"	\$1.65

Electrician's and Switchboard Mechanic's Pattern

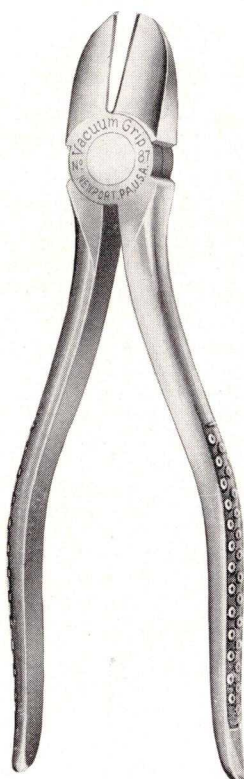
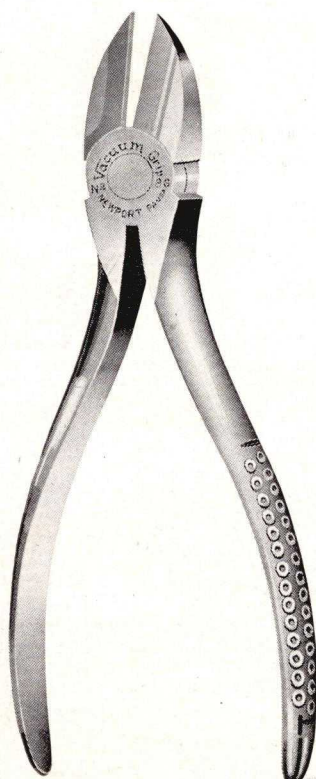
Identical with the two patterns above but slightly lighter in construction. The recognized standard among electrical workers. Cuts the insulation clean, as well as the wire.

No. 186	Length 6"	\$1.90
No. 185	Length 5"	\$1.75

WITH STRIPPER BLADES

No. 286	Length 6"	\$1.90
---------	-----------	--------

All Patterns Buffed to a High Finish



No. 87 SPECIAL HEAVY DUTY PATTERN

Over 200,000 in Daily Use
(Above)

The King of heavy duty diagonals. An exclusive Vacuum Grip pattern designed for automotive, airplane and other mechanics requiring diagonals of exceptional cutting power. Cutting blades hand filed and perfectly matched. Handles the toughest cutting jobs with ease. Especially useful for cutting and pulling cotter pins.

Hammer forged from our own formula electric furnace tool steel, individually heat treated and oil tempered through and through to impart the extra hardness needed for heavy duty service. Has full-fashioned spring tempered handles, giving ease and comfort to the mechanic's hand on jobs where great pressure is applied.

No. 87	Length 7"	\$2.50
--------	-----------	--------

Buffed to a High Finish

No. 386

Extra Heavy Duty Pattern

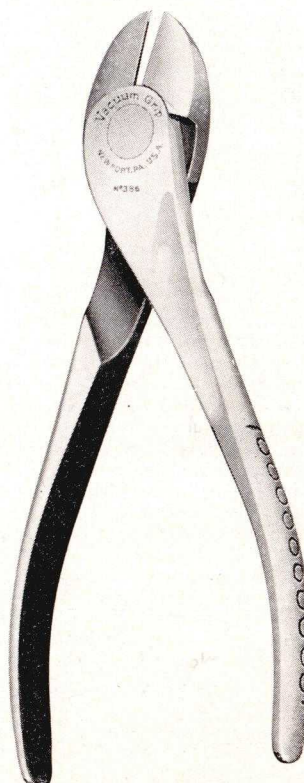
(Below)

There's more real cutting power in these little six-inch diagonals than you'll find in most cutters seven and eight inches in length. That is because they are, first, unusually sturdy in construction, and, second, because the position of the joint pin multiplies hand power by giving extra leverage to the handles.

Specially hardened and tempered by through-and-through heat treatment. A tough tool for tough cutting jobs. Hand filed, perfectly aligned blades. An overcapacity cutter that has become a great favorite among garage mechanics, industrial plant workers and wire box makers.

No. 386	Length 6"	\$1.65
---------	-----------	--------

Buffed to a High Finish

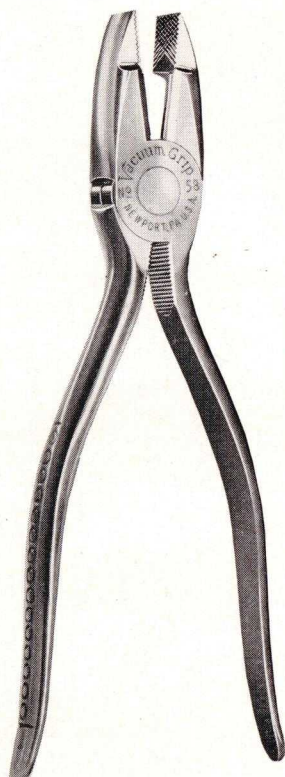




LINEMAN PLIERS

The Recognized Standard

NO description can do justice to these powerful, rugged pliers. Actual use alone demonstrates their superiority over other makes. There is extra cutting power in the keen, perfectly aligned cutting blades—extra strength in the easy-riding joint of special construction—extra leverage in the long, fashioned, spring tempered handles. Special insulation strippers in handles. Every pair subjected to four separate toughening and tempering operations applied to jaws, blades, joints and handles. Guaranteed to give satisfaction or purchase price refunded.



BEVEL-NOSE TYPE

Identical with the "R" pattern but built with slightly heavier head and bevel nose.

No. 56 Length 6"	\$2.00
No. 57 Length 7"	\$2.50
No. 58 Length 8 1/2"	\$3.25
No. 158 Length 8 1/2"	\$3.75

Sleeve Twister in Handles

No. 58-R PROFESSIONAL LINEMAN PLIERS

(Above)

Many special features for lightening the lineman's work, while adding to his efficiency, are built into this finely designed pattern. Tapered nose for working in limited space. Insulation strippers in handles. Double edged V-shaped blades, hand edged and perfectly aligned, for cutting heavy wires clean, without "mashing." Powerful jaws that get a sure grip, for tugging and twisting heavy wires. Spring tempered handles for "hand comfort" on heavy work. Easy-riding joint. Built for the tough jobs. Will outlast several pairs of ordinary pliers.

PURCHASING AGENTS: Ask for special prices on lots of one-half dozen or more, for running tests.

Popular Size

No. 58-R	Length 8 1/2"	\$3.25
No. 56-R	Length 6"	\$2.00
No. 57-R	Length 7"	\$2.50
No. 59-R	Length 9"	\$4.00

All Patterns Buffed to a High Finish

END CUTTING NIPPERS

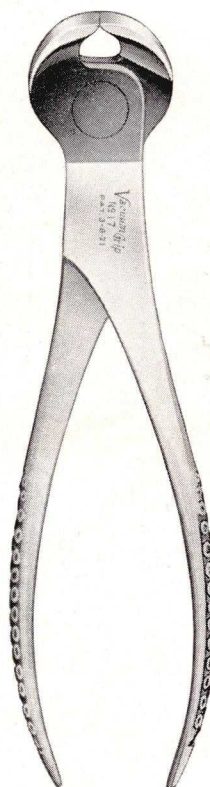
The recognized standard for end nippers. Improved pattern, specially rugged in construction. Exceptionally strong joint and rivet for long wear. Has hand-filed cutting blades for close and easy cutting. Ease in cutting is also assured by the long handles, giving additional power to the blades.

A necessary tool in many industries and valuable to mechanics in all trades.

No. 16 Length 6" \$1.75

No. 17 Length 7" \$1.90

Buffed to a High Finish



No. 12 LINEMAN'S IMPROVED CONNECTORS

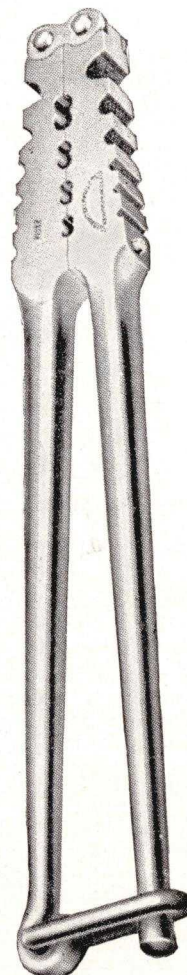
(At Left)

Jaws automatically kept in true alignment by matched pin and hole, an exclusive feature. Locks TIGHT on sleeve or wire, making it easy for the lineman to twist a perfect joint with little or no effort. Very sturdy in construction.

Hammer-forged from electric furnace alloy tool steel hardened and oil tempered through-and-through. Handles specially spring tempered. Takes care of all popular sizes of copper sleeves and bare wire, including B & S Copper Sleeves Nos. 4-6-8-10 and Bare Wire Nos. 2-4-6-8. Has oval hole for guy strand .437 x .624.

No. 12 Length 12" \$4.50

Buffed to a High Finish





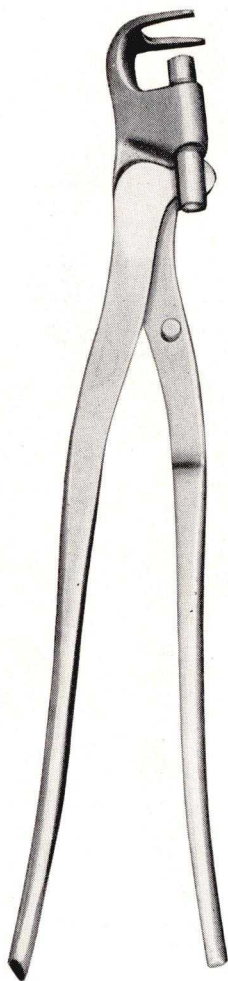
SPECIAL PURPOSE PLIERS

No. 512 BATTERY TERMINAL PULLER

A tool that fills a long felt want. Does away with the usual "wrestling match" that takes place when a corroded cable terminal and battery post become "frozen." Jaws of special construction exert a powerful and direct upward pull that gets action on the most stubborn cable terminal. A great time saver as well as a labor saver. Should be a part of the special-purpose tool equipment of every shop that handles battery work.

No. 512 Length 12" \$2.25

Satin Finish



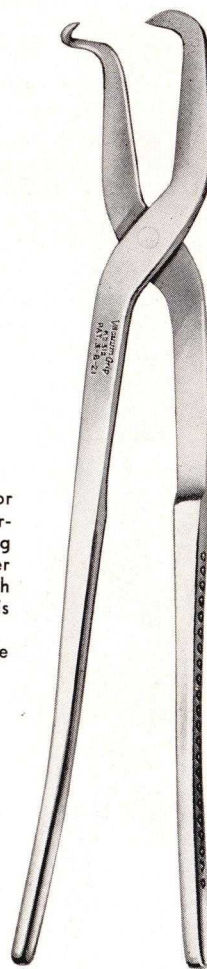
No. 312 BRAKE SPRING PLIERS

Mechanics who overhaul brakes will appreciate the labor saving feature of these special purpose pliers which perform the difficult operations of removing and replacing brake springs on all cars except Ford. Although slender in appearance it is a very powerful tool, designed with the usual Vacuum Grip tool designing skill to handle this class of work with ease, speed and efficiency.

No shop that renders brake overhaul service should be without this valuable tool.

No. 312 Length 12" \$2.25

Satin Finish



14-B SPECIAL BRAKE PLIERS

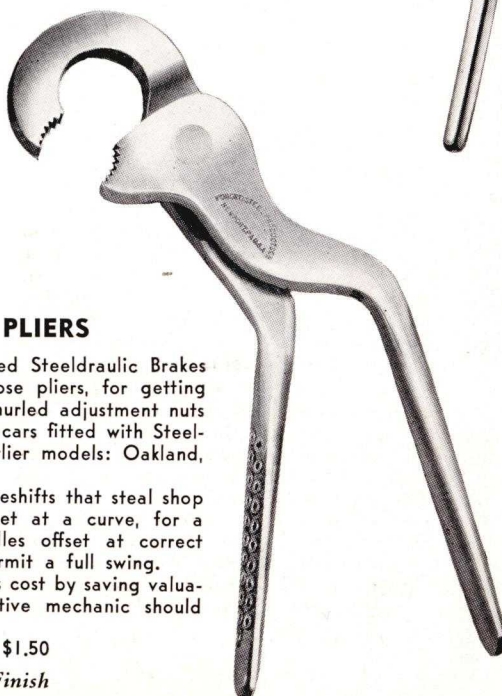
Any mechanic who has overhauled Steeldraulic Brakes will appreciate these special purpose pliers, for getting a sure hold on the hard-to-reach knurled adjustment nuts used on this type of brake. For all cars fitted with Steeldraulic Brakes except 1931 and earlier models: Oakland, Pontiac and Auburn.

Does away with time-wasting makeshifts that steal shop profits. Has special milled teeth set at a curve, for a positive grip. Designed with handles offset at correct angle to clear obstructions and permit a full swing.

A handy tool that quickly saves its cost by saving valuable time. Every shop and automotive mechanic should own it.

14-B Length 5" \$1.50

Buffed to a High Finish





SPECIAL PURPOSE PLIERS

No. 13-P PISTON RING GROOVE CLEANER

It's no fun to dig caked carbon and grease out of piston ring grooves. And when the operation is performed with makeshift tools it often results in serious injury to the grooves, causing loss of compression and other disorders incident to poor ring functioning.

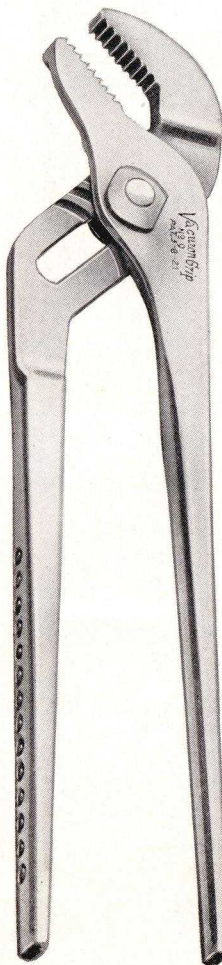
With this efficient tool the mechanic can clean the hardest carbon deposit out of a ring groove in a jiffy—without injury to the groove or piston wall.

The adjustable rotor or cleaner wheel, fitted with four cleaner points, takes care of grooves in all popular sizes of pistons, $\frac{1}{8}$ ", $\frac{5}{32}$ ", $\frac{3}{16}$ " and $\frac{1}{4}$ ". Easy to use—you simply place the right size cleaner point in the groove. The free arm is then engaged in the groove on the opposite side, and a rotary movement does the rest. Adjustable slot permits a wider opening of the jaws for pistons of larger diameter.

No. 13-P \$2.50

Satin Finish

*Quickly Pays
for Itself
in Time Saved!*



Six Jaw Adjustments

No. 9 WATER PUMP AND GENERAL PURPOSE PLIERS

A whale of a tool, originally designed for automobile water pump work but re-designed to increase the scope of its usefulness. Valuable in half a hundred ways around a car, including work on the starter, generator, carburetor, shock absorbers, etc. Also extensively used in other industries where a powerful gripping tool is needed.

The geared joint, a new and patented principle, permits six quick jaw adjustments for nuts, bolts, rods and pipes from $\frac{1}{4}$ " to $1\frac{5}{8}$ "—parallel at all openings. Teeth set at a back slant (Stillson Wrench angle) hold any object in a powerful non-slip grip. This feature also enables mechanic to work with short strokes, a big advantage when operating in cramped quarters. The 45 deg. offset of the jaws will likewise be found valuable for getting action in inaccessible places.

No. 9 Length 9" \$2.00

Full Nickel Finish



No. 105 IGNITION PLIERS

This beautiful little tool is pronounced indispensable by automotive mechanics specializing on SLI. Particularly handy for small nuts on the ignition system. Also valuable for many operations on the carburetor, fuel pump, etc. Has gripping power far in excess of its size. Takes the place of a number of small special purpose wrenches.

Similar in design and construction to No. 9 Water Pump Pliers. Standard adjustable slide joint providing three jaw adjustments. Parallel grip. Teeth set at Stillson Wrench angle.

No. 105 Length 5" \$1.25

Full Nickel Finish

MECHANICS' KITS

HANDI-KIT

For Automotive and Other Mechanics

PRACTICALLY every operation on a car that calls for pliers is taken care of by the three Vacuum Grip patterns which make up the Handi-Kit combination, including those tough special jobs that ordinarily cause the mechanic so much trouble. Also valuable to mechanics in general, as this combination covers the great majority of jobs where pliers are required.

Labor savers and time savers. Scientifically designed precision built tools that augment the skill of the mechanic's hand, enabling him to do better and quicker work with less effort.

No. 137, left—An exclusive Vacuum Grip design for general use. A true two-in-one tool, combining gripping and cutting power. Note the long, thin, tapered nose for working in confined spaces. Two adjustments; full-fashioned handles. Length 7"—\$2.00.

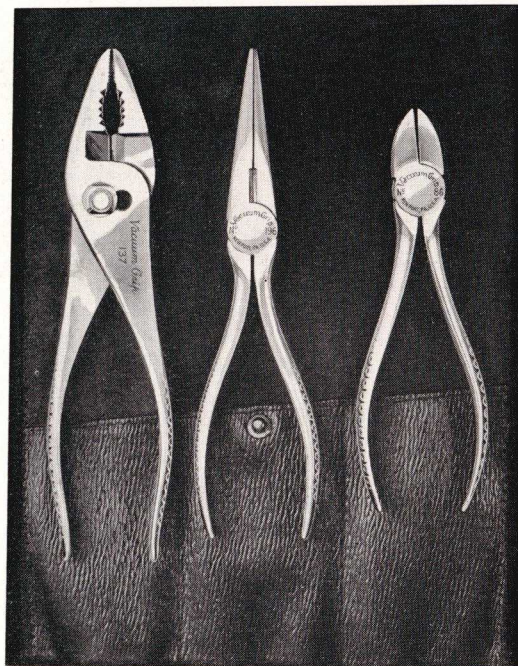
For full description see page 4

No. 196, center—Long Needle Nose Pattern for the hard-to-reach places. Powerful side cutters. Individually hardened and spring-tempered. Easy riding joint. Length 6"—\$1.85.

For full description see page 7

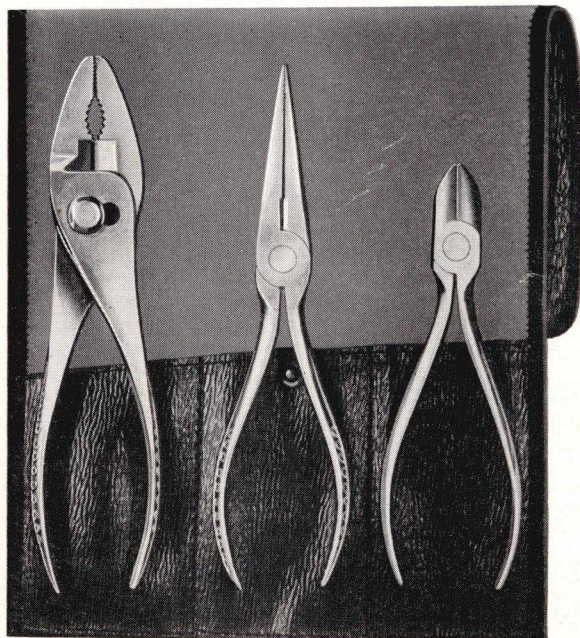
No. 86, right—Diagonal Cutters for cotter pins, electrical work, etc. Very powerful, strong and durable. Length 6"—\$2.00.

For full description see page 8



Handi-Kit—Three patterns as illustrated in a substantial, attractive leatherette case lined with purple velvet. Complete \$5.85.

The Case, Value \$1.00, is Free



AVIATOR'S KIT

IN the field of aviation, where only the best is good enough, Vacuum Grip Pliers have won widespread popularity because of their many outstanding features.

The three patterns comprising the Aviator's Kit are intended primarily for use as an item of airplane equipment, and as such are designed with special reference to lightness. Their light weight, however, entails no sacrifice of strength. The patterns here illustrated have far greater structural strength than ordinary pliers of twice their weight.

This group of pliers takes care of practically every pliers job on an airplane.

No. 67—left—The "Aviator"—an exclusive Vacuum Grip design for general gripping and cutting. Adjustable joint gives two gripping openings. Vacuum Grip non-slip handles. Length 7"—\$2.00.

For full description see page 4

No. 196—center—Long Needle Nose Pattern for the hard-to-reach places. Powerful side cutters. Individually hardened and spring-tempered. Easy riding joint. Length 6"—\$1.85.

For full description see page 7

No. 186—right—Diagonal Cutters. A light weight pattern built for heavy duty work. Length 6"—\$1.90.

For full description see page 8

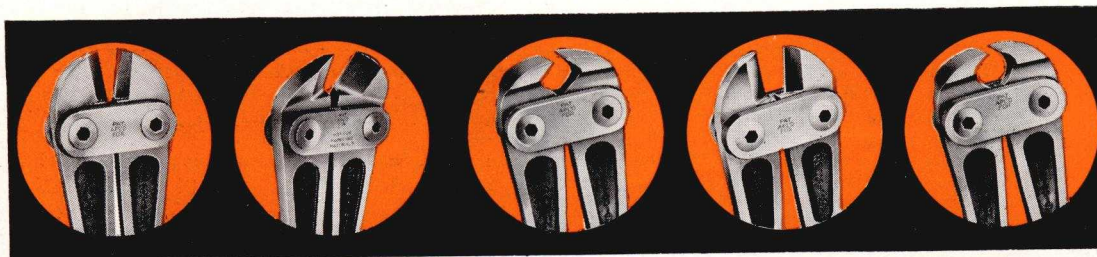
Aviator's Kit—Three patterns as illustrated in a substantial leatherette case lined with purple velvet. Total weight only 18 ozs. Complete \$5.75.

The Case, Value \$1.00, is Free

Any name electrically etched on the handles of each pair of pliers, at no extra cost.



VACUUM GRIP BOLT CUTTERS



Center-Cut
Assembly

Diagonal-Cut
Assembly

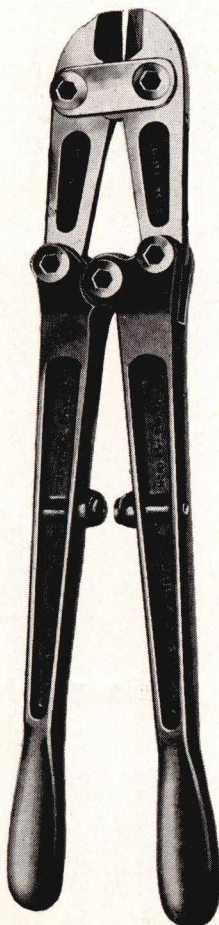
End-Cut
Assembly

Nut Splitters
Center-Cut

Nut Splitters
End-Cut

A Blade for Every Type of Cutting Service

Side-Cut
Assembly



LINEMEN, automotive mechanics and others who use Vacuum Grip Bolt Cutters unhesitatingly pronounce them to be the most powerful and most durable cutters made. Built on the compound lever principle which multiplies hand power tremendously, they make the toughest cutting jobs easy. An over-capacity tool that does the work of ordinary cutters measuring from one-quarter to one-third longer.

Handles hammer forged from a special alloy tool steel which, unlike the malleable cast steel used in the handles of ordinary cutters, does not bend or snap.

Cutting blades of the same specially hardened and tempered steel used in Vacuum Grip Diagonal Cutters—the toughest ever put into a pair of bolt cutters. Accurately aligned hand edged blades, kept in alignment by a special type of bearing plate and riveted joint. Blades interchangeable as a unit. Quickly and easily removed by means of two set screws and a small wrench furnished for that purpose.

Strong, rugged and durably built throughout. A tough tool for tough cutting jobs.

BOLT CUTTERS

Sizes and Prices

Prices are for Cutters Complete with Blades

No. 114—14". Shears bolts and rods up to 5/16" with ease—a cutting capacity equal to any 18" cutter on the market. Complete with side-cut type blades	\$4.00
No. 114-C—With center-cut blades	4.25
No. 114-E—With end-cut blades	4.40
No. 114-D—With diagonal-cut blades	4.40
No. 118—18". Cutting capacity 3/8", equal to 24" in other makes of cutters. Complete with side-cut type blades	5.00
No. 118-C—With center-cut blades	5.25
No. 118-E—With end-cut blades	5.50
No. 118-D—With diagonal-cut blades	5.50
No. 124—24". Cutting capacity 1/2", equal to 30" in other makes of cutters. Complete with side-cut type blades	6.50
No. 124-C—With center-cut blades	6.75
No. 124-E—With end-cut blades	7.00
No. 124-D—With diagonal-cut blades	7.00
No. 136—36". Cutting capacity 3/4", equal to 42" in the other makes of cutters. With side-cut or center-cut type blades	9.00

BLADE ASSEMBLIES

Sizes and Prices

Prices are for Blade Assembly Only

No. 114-S.B.—Side-cut blades	\$1.60
No. 114-CB—Center-cut blades	1.85
No. 114-E.B.—End-cut blades	2.00
No. 114-D.B.—Diagonal-cut blades	2.00
No. 114-C.N.S.B.—Nut Splitter center-cut blades	1.60
No. 114-E.N.S.B.—Nut Splitter end-cut blades	2.00
No. 118-S.B.—Side-cut blades	2.00
No. 118-C.B.—Center-cut blades	2.25
No. 118-E.B.—End-cut blades	2.50
No. 118-D.B.—Diagonal-cut blades	2.50
No. 118-C.N.S.B.—Nut Splitter center-cut blades	2.00
No. 118-E.N.S.B.—Nut Splitter end-cut blades	2.50
No. 124-S.B.—Side-cut blades	2.50
No. 124-C.B.—Center-cut blades	2.75
No. 124-E.B.—End-cut blades	3.00
No. 124-D.B.—Diagonal-cut blades	3.00
No. 136-S.B.—Side-cut blades	3.50
No. 136-C.B.—Center-cut blades	3.50

Specially hardened center-cut blades for cutting hardened substances, at slight additional cost.

Their long life makes a profitable investment.

Vacuum Grip Tools

BUILT UP TO
NOT DOWN A STANDARD
TO A PRICE

VACUUM GRIP CHISELS and PUNCHES

ONCE more steel wins! Like Vacuum Grip Pliers, these members of the famous Forged Steel family have become a by-word for toughness and durability as the result of the super steel used in their manufacture.

Vacuum Grip Chisels and Punches are hammer forged from our own exclusive formula electric furnace alloy chisel steel, individually hardened by liquid heat process and oil tempered through and through. Notwithstanding the fact that chisels are the most abused and misused of all hand tools, Vacuum Grip Chisels are hard enough to cut bolts, rivets, cast iron, steel and even nickel steel axle shafts, and yet tough enough to withstand breakage from glancing blows and wedging strains.

All we ask is that you place Vacuum Grip Chisels and Punches on running test against any or all other makes, letting the actual results determine the comparative values.

VACUUM GRIP CHISELS

	Oct. Stock	Edge	Length	Price
No. 12	3/8"	3/8"	5 1/2"	.35
No. 16	7/16"	1/2"	6 1/2"	.45
No. 20	1/2"	5/8"	6 1/2"	.50
No. 24	5/8"	3/4"	7 1/2"	.60
No. 28	3/4"	7/8"	8"	.70

VACUUM GRIP PIN PUNCHES

	Oct. Stock	Point	Length	Price
No. 103	5/16"	3/32"	5"	.30
No. 104	3/8"	1/8"	5 1/2"	.35
No. 105	7/16"	5/32"	6"	.40
No. 106	1/2"	3/16"	6 1/2"	.50
No. 108	1/2"	1/4"	6 3/4"	.55
No. 110	5/8"	5/16"	7"	.60

CHISEL SET VC-5

Practically every chisel need of the mechanic is met in the five sizes of Vacuum Grip Chisels listed above. Conveniently tucked away in pockets in a strong leatherette case.

Complete \$2.90

PIN PUNCH SET VP-6

Set of six, carefully graded with regard to diameter of points for complete coverage in every shop job where a punch is used. Put up in a long-wearing leatherette case.

NOTE—Due to the extremely fine points on Nos. 103 and 104 we can not guarantee these sizes.

Complete \$3.00

1—LONG TAPERED PUNCHES

	Oct. Stock	Point	Length	Price
No. 205	3/8"	5/32"	8"	.45
No. 208	7/16"	1/4"	8 1/2"	.50
No. 210	1/2"	5/16"	9"	.60
No. 212	5/8"	3/8"	9 1/2"	.70

2—STARTER PUNCHES

	Oct. Stock	Point	Length	Price
No. 704	7/16"	1/8"	6 1/8"	.40
No. 706	1/2"	3/16"	6 3/8"	.50
No. 710	9/16"	5/16"	7"	.55

3—CENTER PUNCHES

Tapered end and point specially heat-treated for extra hardness. Point stands up indefinitely, hence can be used for making an indentation of ample depth to properly seat a drill or center reamer.

	Oct. Stock	Length	Price
No. 3-C	3/8"	4"	.30
No. 4-C	1/2"	5"	.35

4—DRIFT PUNCHES

	Oct. Stock	Point	Length	Price
No. 504	5/16"	5/32"	5"	.30
No. 506	3/8"	3/16"	5 1/4"	.35
No. 508	7/16"	1/4"	5 3/4"	.40
No. 510	1/2"	5/16"	6 1/4"	.50

5—CAPE CHISELS

	Oct. Stock	Edge	Length	Price
No. 13	3/8"	1/4"	6"	.45
No. 14	7/16"	5/16"	6"	.50

6—DIAMOND POINT CHISELS

	Oct. Stock	Edge	Length	Price
No. 15	1/2"	1/4"	6 1/4"	.45
No. 19	3/8"	1/8"	5 1/2"	.35

Vacuum Grip Chisels and Punches are Chrome Plated with Buffed Blades



VACUUM GRIP SCREWDRIVERS

THE last word in screw driver efficiency, strength and durability. Hammer forged from a special alloy tool steel of exceptional toughness. Handles of the popular "Pyralin," made to stand up against hammering. This highly dielectric material also serves to protect the mechanic against shocks when working on high voltage electric lines.

ASSORTMENT No. 1

HEAVY DUTY LINE—One each of Nos. 12-8-6.

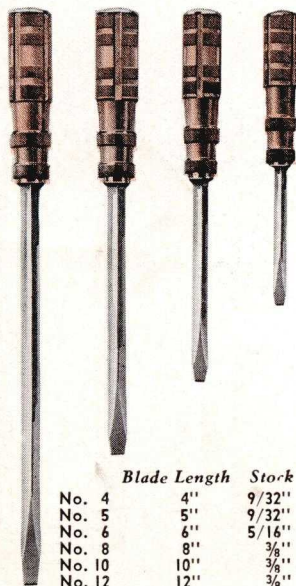
Two each of Nos. 4-2-1.

CABINET LINE—One each of Nos. 410-460-430.

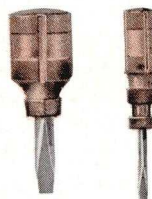


HEAVY DUTY LINE

Designed for all-around general use wherever a sturdy type of screw driver is needed. A favorite among automotive mechanics and linemen. The larger sizes are in demand among mechanics of all classes, where the character of the work requires a screw driver of exceptionally strong construction.



	Blade Length	Stock	Price
No. 4	4"	9/32"	\$.60
No. 5	5"	9/32"	.75
No. 6	6"	5/16"	.85
No. 8	8"	3/8"	1.00
No. 10	10"	3/8"	1.15
No. 12	12"	3/8"	1.25



"STUBBY"

(At Left)

A powerful little screw driver for adjusting valves and for semi-heavy duty service on special jobs where a short reach screw driver of great strength is required. A valuable tool for the mechanic's kit.

No. 2 Blade Length 1 1/2"
Stock 5/16" Price \$.40

"MIDGET"

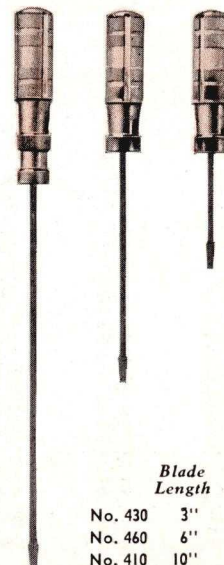
(At Right)

A strong, serviceable tool for all jobs where small screws are used. Handle of "Pyralin," small in diameter, can be twirled between finger and thumb, a valuable time saving feature, particularly on the assembling bench of industrial plants that must get volume through speed. A favorite with electrical workers. Every mechanic should own this tool.

No. 1 Blade Length 1 1/2"
Stock 1/8" Price \$.35

CABINET LINE

Designed to meet a widespread demand for a light weight type of screw driver to handle light jobs. Indispensable in shops where the nature of the work calls for a type of screw driver designed on slender lines, to reach screws that are "buried" in confined spaces, inaccessible with ordinary screw drivers. Very strong despite their slenderness.



	Blade Length	Stock	Price
No. 430	3"	3/16"	\$.50
No. 460	6"	3/16"	.60
No. 410	10"	3/16"	.70

VACUUM GRIP DISPLAY CABINETS

PLACED in an advantageous position in your establishment, a Vacuum Grip Display Case will materially increase your pliers sales.

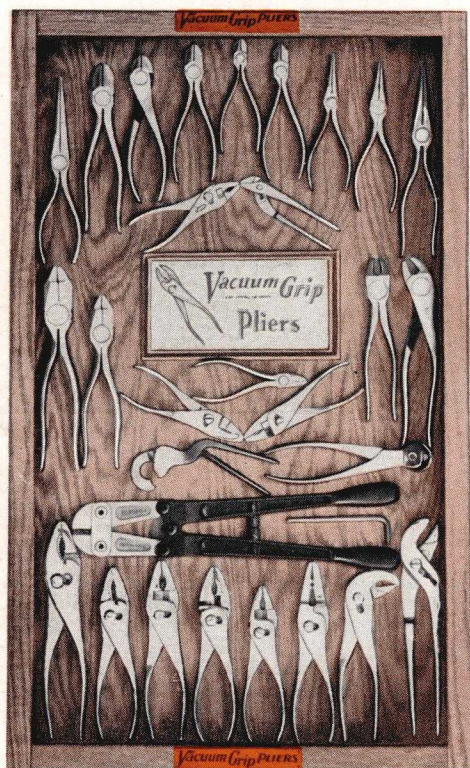
Made of polished quartered oak with a hinged glass door to protect stock against dust and dirt. Satin finish aluminum display sign in center adds to the attractiveness of the exhibit. Pliers mounted by means of hooks, each tool tagged with its catalog number and retail price. When necessary, samples may easily be removed for sale and replaced later from new stock.

These cabinets are furnished FREE to our jobbers with a minimum order for Vacuum Grip Pliers or other tools in the Vacuum Grip Line.

No. 32 DISPLAY CABINET

As illustrated, this case contains an ideal assortment of 29 tools, including all the best sellers, but where desired will be furnished with an assortment made up of tools selected by the customer.

Width 19"
Height 31"
Depth 2 $\frac{7}{8}$ "



No. 33 DISPLAY CABINET

Contains 34 tools representative of the complete Vacuum Grip line, including the fastest moving items, mounted on hooks for easy removal. A truly impressive array of pliers and automotive special-purpose tools, calculated to awaken the interest of the mechanic in this Quality line.

Width 21"
Height 42"
Depth 2 $\frac{7}{8}$ "

JOBBERs: Write for full particulars regarding our FREE OFFER on these cases. No charge is made for the case, only for the samples mounted, at regular open stock prices.

